|  | Application No.  | Applicant(s)  |        |
|--|--|---|--------|
| Notice of Allowability   | 10/815,162   | WU, STEPHEN   |        |
|  | Examiner   | Art Unit  |        |
|  | Hiep Nguyen  | 2816  |        |
|  | Niep Nguyen  | 2010  |        |
| The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS therewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R | (OR REMAINS) CLOSED in or other appropriate commits (IGHTS). This application is | n this application. If not included unication will be mailed in due cours |        |
| 1. $igspace$ This communication is responsive to <u>amendment filed on 0</u>   | <u>01-24-06</u> .  |   |        |
| 2. $\boxtimes$ The allowed claim(s) is/are <u>1-27,30 and 33-35</u> .  |  |   |        |
| 3. Acknowledgment is made of a claim for foreign priority ur   | nder 35 U.S.C. § 119(a)-(d)  | or (f).   |        |
| a) All b) Some* c) None of the:  |  |   |        |
| <ol> <li>Certified copies of the priority documents have</li> </ol>  | e been received.   |   |        |
| 2.  Certified copies of the priority documents have  | e been received in Application   | on No   |        |
| <ol><li>Copies of the certified copies of the priority do</li></ol>  | cuments have been receive  | d in this national stage application fr                                   | om the |
| International Bureau (PCT Rule 17.2(a)).   |  |   |        |
| * Certified copies not received:   |  |   |        |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |  | e a reply complying with the requirem                                     | nents  |
| 4. A SUBSTITUTE OATH OR DECLARATION must be subm<br>INFORMAL PATENT APPLICATION (PTO-152) which give   |  |   | E OF   |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") mus   | st be submitted.   |   |        |
| (a)  including changes required by the Notice of Draftspers  | son's Patent Drawing Review  | w ( PTO-948) attached   |        |
| 1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date   | ,  |   |        |
| (b) ☐ including changes required by the attached Examiner'<br>Paper No./Mail Date  | s Amendment / Comment o  | r in the Office action of   |        |
| Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t   |  |   | of     |
| <ol> <li>DEPOSIT OF and/or INFORMATION about the depo<br/>attached Examiner's comment regarding REQUIREMENT</li> </ol>   |  |   | ne     |
|  |  |   |        |
| Attachment(s)  |  |   |        |
| 1. Notice of References Cited (PTO-892)  |  | formal Patent Application (PTO-152  | )      |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948)   |  | ummary (PTO-413),<br>/Mail Date <u><i>03-23-06</i></u> .                  |        |
| <ol> <li>Information Disclosure Statements (PTO-1449 or PTO/SB/0<br/>Paper No./Mail Date</li> </ol>  |  | Amendment/Comment   |        |
| 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material   | 8. 🛭 Examiner's  | Statement of Reasons for Allowance  | е      |
|  | 9. 🗌 Other   | - melle   |        |
|  |  | TUAN T. LAM PRIMARY EXAMINER  | ł      |

U.S. Patent and Trademark Office PTOL-37 (Rev. 7-05) Application/Control Number: 10/815,162

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# **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and /or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST submit no later than the payment of the issued fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney James A. Harrison (Reg. No. 40,401).

The following changes have been made to the subject application:

# In the claims

# IN CLAIM 1:

Lines 10-12, replace "a pulse-swallow configured divider module for producing a pre-scaled divider output based upon the oscillation produced by the VCO and a divided oscillation based upon the pre-scaled divider output" with --" a pulse-swallow configured divider module for producing a pre-scaled divider output and a divided oscillation based upon the oscillation produced by the VCO ---.

#### IN CLAIM 10:

Lines 2-4, replace "a pulse-swallow configured divider module for producing a prescaled divider output based upon an oscillation produced by a frequency source and a divided oscillation based upon the pre-scaled divider output" with --" a pulse-swallow configured divider module for producing a pre-scaled divider output and a divided oscillation based upon the oscillation produced by a frequency source--.

### IN CLAIM 18:

Lines 2-3, replace "producing a pre-scaled divider output based upon an oscillation produced by a frequency source; producing a divided oscillation based upon the pre-scaled divider output" with -- producing a pre-scaled divider output and a divided oscillation based upon an oscillation produced by a frequency source--.

# IN CLAIM 30:

Lines 5-6, replace "a first latching block for latching the divided oscillation based upon the frequency source oscillation as a clock to produce a first latched signal" with --a first

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latching block for latching the divided oscillation based upon a pre-scaled divider output as a clock to produce a first latched signal--.

# Reason for Allowance

The following is an examiner's statement of reasons for allowance: claims 1-27, 30 and 33-35 are allows because the prior art of records (US 6,424,192) fails to teach or suggest a phase-locked loop comprising a pulse-wallow configured divider module for producing a pre-scaled divider output and a divided oscillation based upon the oscillation produced by the VCO as called for in claim 1; a divider for producing a low phase noise divided oscillation comprising a pre-scaled divider output and a divided oscillation based upon the oscillation produced by a frequency source as called for in claim 10; a method for producing a low phase noise divided oscillation comprising producing a pre-scaled divider output and a divided oscillation based upon an oscillation produced by a frequency source as called for in claim 18; a method for producing a low-noise divided oscillation comprising latching a divided signal based upon a pre-scaled divider output to produce a first latched signal wherein the prescaled divider output is based upon an oscillation, latching the first latched signal based upon the oscillation to produce a second latched signal, latching the second latched signal based upon the oscillation to produce a low-noise divided oscillation, biasing first and second latching blocks with a first latched signal at a first bias level, biasing a third latching block with a second latched signal at a second bias level as called for in claim 26 and a divider producing a low phase noise divided oscillation comprising a multi-modulus divider module for producing a divided oscillation, a first latching block for latching the divided oscillation based upon a pre-scaled divider output, a second latching block wherein the first and second latching blocks are biased by a first bias signal and a third latching block biased by a second bias signal having a magnitude greater than the first bias signal as called for in claim 30. Therefore, claims 1-27, 30 and 33-35 are presently allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.".

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# Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

03-16-06

TUANT. LAM